

## **REMARKS**

### **Allowed Claims**

The Applicants acknowledge with appreciation that claims 1-12, 14, 16-23, 25, 27-32 and 34 have been allowed in the Office Action dated February 20, 2008.

### **Pending Claims:**

Claims 1-12, 14, 16-23, 25, 27-32, and 34-35 are currently pending in the present application. Claims 1-12, 14, 16-23, 25, 27-32 and 34 have been allowed. Claim 29 has been amended to correct a typographical error. Independent claim 35 has been amended. Upon entry of the present Amendment and Response, reconsideration of claim 35 is respectfully requested.

### **Rejections under 35 U.S.C. §102(e)**

Claim 35 is rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Number 6,985,020 to Zhou et al. (hereinafter “Zhou”). The Office Action states that the elements of independent claim 35 are all disclosed in Zhou.

Independent claim 35 has been amended to recite a means for non-linearly processing an electrical modulation signal with a non-linear circuit in response to both the first bias signal and the second bias signal to generate a pre-distorted modulation signal. In addition, claim 35 has been amended to recite a means for propagating the pre-distorted modulation signal through a transmission line to a modulation input of a laser having an input impedance that is substantially matched to an output impedance of the non-linear circuit. These amendments are supported by

the specification of the present application. See, for example, paragraph 22 of the present specification.

As described in paragraph 22 of the present application, integrating the pre-distortion circuit with the modulated laser can eliminate the need for an equalization circuit and other interface components, such as impedance matching components. In contrast, Zhou includes interface components that provide an impedance match between the pre-distortion circuit and the laser. Referring to Zhou FIG. 7 and to the text beginning on Zhou column 6, Zhou describes that inductor L301, capacitor C304, and match resistor R309 are used for impedance matching. The Applicants submit that such impedance matching components are not necessary in the optical source claimed in independent claim 35 because independent claim 35 explicitly recites that the modulation input of the laser has an input impedance that is substantially matched to the output impedance of the non-linear circuit.

To anticipate a claim under 35 U.S.C. §102, a single reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught by the reference must be inherently present in the reference. Thus, a claim is anticipated by a reference only if each and every element of the claim is described, either expressly or inherently, in a single prior art reference.

The Applicants submit that independent claim 35 is allowable over Zhou because Zhou does not describe propagating the pre-distorted modulation signal through a transmission line to a modulation input of a laser having an input impedance that is substantially matched to an output impedance of the non-linear circuit as described in the Amendment and Response dated November 26, 2007.

Therefore, the Applicants submit that independent claim 35 is allowable over Zhou because Zhou does not describe the claimed means for non-linearly processing an electrical modulation signal with a non-linear circuit and the claimed means for propagating the pre-distorted modulation signal through a transmission line to a modulation input of a laser having an input impedance that is substantially matched to an output impedance of the non-linear circuit.

### **CONCLUSION**

Claims 1-12, 14, 16-23, 25, 27-32, and 34-35 are currently pending in the present application. Claim 29 has been amended to correct a typographical error. Independent claim 35 has been amended. The Applicants respectfully request reconsideration of the pending claims in light of the amendments and arguments presented in this Amendment and Response.

The Applicant's Attorney has requested a telephonic interview to expedite prosecution of the present patent application. The Applicant's Attorney welcomes the opportunity to discuss any outstanding issues, and to work with the Examiner toward placing the application in condition for allowance. Applicants believe that no fees are due with the submission of the present Amendment and Response. However, if proper fee are due, the Commissioner is hereby authorized to charge any proper fees to Attorney's Deposit Account No. 501211.

Respectfully submitted,

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